

WHAT IS CLAIMED IS:

1           1. A compound having the formula:



2           wherein

4           Ab is an antibody;

5           G is an intact glycosyl linking group covalently joining Ab to L;

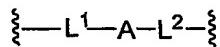
6           L is a bond or a spacer moiety covalently joining G to T; and

7           T is a toxin.

1           2. The compound according to claim 1, wherein said linker moiety is a  
2 member selected from substituted or unsubstituted alkyl, substituted or unsubstituted  
3 heteroalkyl and substituted or unsubstituted aryl moieties.

1           3. The compound according to claim 2, wherein said linker moiety  
2 comprises a poly(ethylene glycol) moiety.

1           4. The compound according to claim 1, wherein L has the formula:



3           wherein

4           L<sup>1</sup> is a bond or a linker moiety covalently joining S to A;

5           A is an amplifier moiety; and

6           L<sup>2</sup> is a bond or a spacer moiety covalently adjoining A to T.

1           5. The compound according to claim 4, wherein said amplifier moiety is a  
2 polyamine moiety.

1           6. The compound according to claim 5, wherein said polyamine moiety is  
2 a dendrimer.

1           7. The compound according to claim 4, having the formula:



3           wherein

4           PEG is a straight- or branched-chain poly(ethylene glycol);

5           m is an integer from 1 to 6; and

6           n is an integer from 1 to 1,000.

1           8. The compound according to claim 4, having the formula:

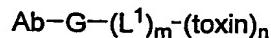


2           wherein

4           m is an integer from 1 to 6; and

5           n is an integer from 1 to 1,000.

1           9. The compound according to claim 4, having the formula:

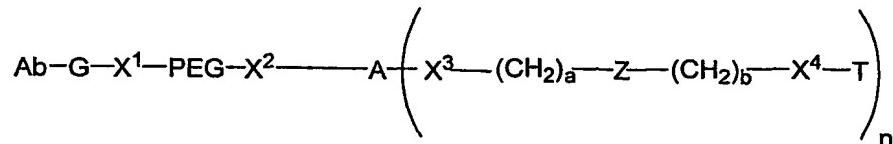


2           wherein

4           m is an integer from 1 to 6; and

5           n is an integer from 1 to 1,000.

1           10. The compound according to claim 1, having the formula:



2           wherein

4           X<sup>1</sup>, X<sup>2</sup> and X<sup>4</sup> are linking groups and are members selected from the group  
5           consisting of O, S, NH, (CH<sub>2</sub>)<sub>q</sub>-NH, NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(O)-O,  
6           O-C(O)-NH, (CH<sub>2</sub>)<sub>q</sub>-NH-C(O)-O, O-C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, C(O)-O,  
7           O-C(O), (CH<sub>2</sub>)<sub>q</sub>-NH-C(O), C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(S), and C(S)-NH  
8           and wherein

9           A is an amplifier moiety;

10          Z is a bond cleaved by a metabolic/physiological process;

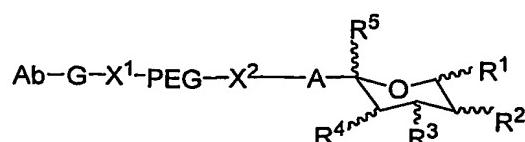
11          n is an integer from 1 to 1,000;

12          a is an integer from 1 to 10;

13          b is an integer from 1 to 10; and

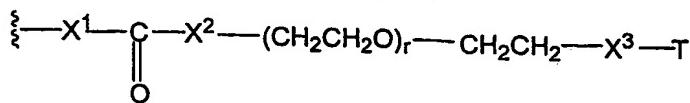
14          q is an integer from 0 to 20.

1           11. The compound according to claim 1, having the formula:



2           wherein

4 at least one of R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, is :



6 wherein

7 r is an integer from 1 to 2,500;

8 Z<sup>1</sup> is selected from the group consisting of O, S, and NH;

9 Z<sup>2</sup> is selected from the group consisting of NH, and NH-(CH<sub>2</sub>)<sub>q</sub>;

10 and

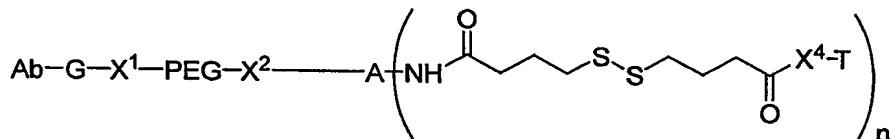
11 X<sup>1</sup>, X<sup>2</sup> and X<sup>3</sup> are linking groups and are members selected from the group  
 12 consisting of O, S, NH, (CH<sub>2</sub>)<sub>q</sub>-NH, NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(O)-O,  
 13 O-C(O)-NH, (CH<sub>2</sub>)<sub>q</sub>-NH-C(O)-O, O-C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, C(O)-O,  
 14 O-C(O), (CH<sub>2</sub>)<sub>q</sub>-NH-C(O), C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(S), and C(S)-NH

15 wherein

16 n is an integer from 1 to 1,000; and

17 q is an integer from 0 to 20.

1 12. The compound according to claim 1, having the formula:



3 wherein

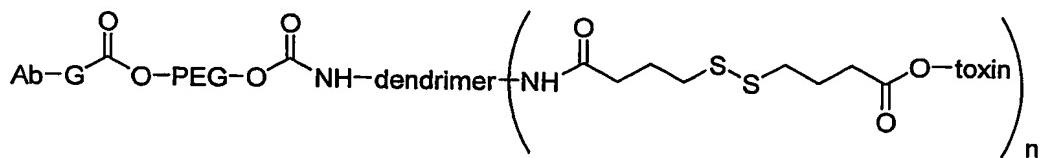
4 X<sup>1</sup>, X<sup>2</sup> and X<sup>4</sup> are linking groups and are members selected from the group  
 5 consisting of O, S, NH, (CH<sub>2</sub>)<sub>q</sub>-NH, NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(O)-O,  
 6 O-C(O)-NH, (CH<sub>2</sub>)<sub>q</sub>-NH-C(O)-O, O-C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, C(O)-O,  
 7 O-C(O), (CH<sub>2</sub>)<sub>q</sub>-NH-C(O), C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(S), and C(S)-NH

8 wherein

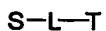
9 n is an integer from 1 to 1,000; and

10 q is an integer from 0 to 20.

1 13. The compound according to claim 12, having the formula:



1           14. A compound having the formula:



2           wherein

3           S is a nucleotide sugar

4           L is a bond or a spacer moiety covalently joining S to T; and

5           T is a toxin moiety.

1           15. The compound according to claim 14, wherein said spacer moiety is a

2 member selected from substituted or unsubstituted alkyl, substituted or unsubstituted

3 heteroalkyl and substituted or unsubstituted aryl moieties.

1           16. The compound according to claim 15, wherein said spacer moiety

2 comprises a poly(ethylene glycol) moiety.

1           17. The compound according to claim 14, wherein L has the formula:



2           wherein

3           L<sup>1</sup> is a bond or a spacer moiety covalently joining S to A;

4           A is an amplifier moiety; and

5           L<sup>2</sup> is a bond or a spacer moiety covalently joining A to T.

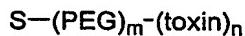
1           18. The compound according to claim 17, wherein said amplifier moiety is

2 a polyamine moiety.

1           19. The compound according to claim 18, wherein said polyamine moiety

2 is a dendrimer.

1           20. The compound according to claim 17, having the formula:



2           wherein

3           PEG is a straight- or branched-chain poly(ethylene glycol);

4           m is an integer from 1 to 6; and

5           n is an integer from 1 to 1,000.

1           21. The compound according to claim 17, having the formula:

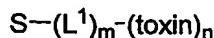


3       wherein

4           m is an integer from 1 to 6; and

5           n is an integer from 1 to 1,000.

1       22.     The compound according to claim 17, having the formula:

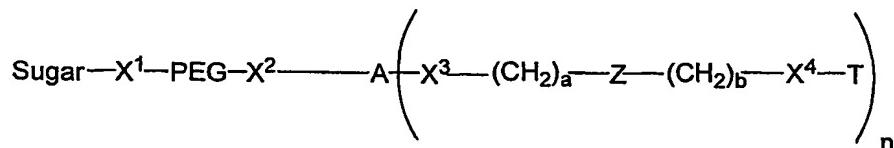


2       wherein

3           m is an integer from 1 to 6; and

4           n is an integer from 1 to 1,000.

1       23.     The compound according to claim 22, having the formula:



2       wherein

3           X<sup>1</sup>, X<sup>2</sup> and X<sup>3</sup> are linking groups and are members selected from the group  
 4           consisting of O, S, NH(CH<sub>2</sub>)<sub>q</sub>-NH, NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(O)-O,  
 5           O-C(O)-NH, (CH<sub>2</sub>)<sub>q</sub>-NH-C(O)-O, O-C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, C(O)-O,  
 6           O-C(O), (CH<sub>2</sub>)<sub>q</sub>-NH-C(O), C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(S), and C(S)-NH

7       and wherein

8           A is an amplifier moiety;

9           Z is a bond cleaved by a metabolic/physiological process;

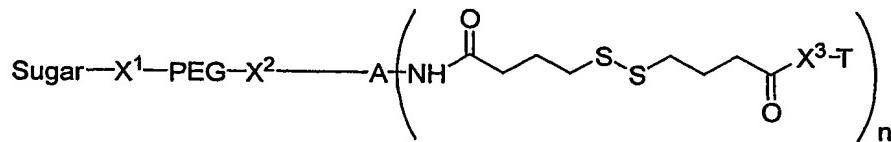
10          n is an integer from 1 to 1,000;

11          a is an integer from 1 to 10;

12          b is an integer from 1 to 10; and

13          q is an integer from 0 to 20.

1       24.     The compound according to claim 14, having the formula:



2       wherein

3           X<sup>1</sup>, X<sup>2</sup> and X<sup>3</sup> are linking groups and are members selected from the group

4           consisting of O, S, NH(CH<sub>2</sub>)<sub>q</sub>-NH, NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(O)-O,

6                   O-C(O)-NH, (CH<sub>2</sub>)<sub>q</sub>-NH-C(O)-O, O-C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, C(O)-O,  
7                   O-C(O), (CH<sub>2</sub>)<sub>q</sub>-NH-C(O), C(O)-NH-(CH<sub>2</sub>)<sub>q</sub>, NH-C(S), and C(S)-NH

8                   wherein

9                   q is an integer from 0 to 20.

1                 25.   The compound according to claim 24, having the formula:

